

ABSTRACT

Baby incubators are used for premature babies where babies are born prematurely. To ensure the accuracy of medical devices, periodic tests and controls need to be carried out aimed at reducing the risk of measurement. The baby incubator can be tested with a calibration tool that is an incubator analyzer which is a tool to calibrate temperature, noise, humidity, and airflow in the baby incubator so that conditions remain stable and within normal limits. This type of research uses after only design. The standard incubator analyzer is not equipped with PC (Personal Computer) and data processing via Excel. "PC View Incubator Analyzer" has four parameters for measuring temperature, noise, humidity, and airflow. Using the Atmega328 Microcontroller as a data processor, equipped with sending data via Bluetooth HC-05 with data storage and output results will be displayed on the LCD display and PC. Noise parameters using the Analog Sound Sensor V2 sensor and have the biggest error at 37oC setting temperature that is equal to 0.17%. While the airflow parameter uses an airflow sensor with type D6F-V3A01 and has the biggest error that is 0.5% at a temperature setting of 36oC and 37oC. The use of displays on personal computers and data processing using Excel, allows users to monitor calibration and data processing. The feasibility of this module cannot be proven yet because the data collection process is not yet complete.

Keywords: *Incubator Analyzer, Noise, Airflow.*